

# Material Safety Data Sheet

## Milliken Modular Carpet Adhesive 100V

Date: March 14, 2012

### Manufactured for:

Milliken  
1440 Campton Road  
Inman, SC 29349  
Telephone: 864.472.9047

### 24-hour Emergency:

Chemtrec 1-800-424-9300

### Product Identification:

Product Class: Aqueous Adhesive  
Product Name: Milliken Modular 100V

### Hazardous Ingredients: None known.

\*All components of this product appear on the Inventory of Chemical Substances published by the U.S. Environmental Protection Agency (EPA) under the authority of the Toxic Substances Control Act (TSCA).

### Physical Data:

Boiling Point: 212° F  
Vapor Density: Same as water.  
Evaporation Rate: Same as water.  
Appearance & Odor: White, creamy, low odor  
Weight per Gallon: 8.2 lbs.  
Percent Volatile by Weight: 45-50% (as water)  
Solubility in Water: Dispersible  
V.O.C. (Calculated): "zero" grams/liter

### Fire and Explosion Hazard Data:

Flammable Limits: Non-flammable  
Flash Point: > 212 deg. F.  
Flammability Classification: OSHA: None  
DOT: None  
Extinguishing Media: CO<sub>2</sub>, chemical foam, water fog

**Special Fire Fighting Features:** Wear self-contained breathing gear when in confined area.

### Health Hazard Data:

Threshold Limit Value: Not established  
Effects of Overexposure: No known chronic overexposure effects.

HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	B

**Emergency and First Aid Procedure:** Eye contact may cause irritation. In case of eye contact, flush with water for 10-15 minutes. If irritation persists, consult a physician. Skin Contact: prolonged contact may cause slight irritation of the skin. Wash with soap and water. If swallowed, consult a physician. Inhalation: if symptomatic, move to fresh air. Get medical attention if symptoms occur.

### Reactivity Data:

Conditions to avoid: Excessive heat or cold.  
Stability: Stable.  
Incompatibility: None known.  
Hazardous Decomposition Products: None known; Normal (CO<sub>2</sub>, CO).  
Hazardous Polymerization: Will not occur.

### Precautions for Handling and Use:

Ventilation: Local ventilation.  
Protective Gloves: Recommended.  
Eye Protection: Safety glasses.  
Hygienic Practices: Wash with soap and water after exposure.  
Respiratory Protection: Not required with adequate ventilation.  
Other Protective Equipment: None.  
Spills: Cover small spills with inert absorbent, then sweep up and place in waste disposal container. Dispose of in accordance with Federal, State and Local regulations.

### Special Precautions/Other Comments:

Precautions to be taken in handling and storing: Store inside at a temperature of 60° - 100° F. Do not allow product to freeze.  
Other precautions: None

### Transportation Data:

D.O.T. Hazard Class: Unregulated

**Specification Sheet**  
**Milliken Modular Carpet Adhesive-100V**  
 Order as pattern #500599/757/00001

Milliken Modular Carpet Adhesive-100V is an acrylic emulsion adhesive specially formulated for use with Milliken Modular Carpets. This formulation contains no reportable solvents and meets or exceeds all CRI "Green Label" requirements (CRI registration # is PSA-456521). While providing a high degree of tack and resistance to lateral movement, it will also allow removal of the carpet squares to facilitate access to electrical lines, telephone lines, etc. as well as allowing for the replacement of worn, damaged or stained squares.

**PRODUCT DESCRIPTION**

Packaging	5 gallon pail with pour spout
Weight Per Gallon	8.5 lbs. / gallon $\pm$ 0.25 lbs.
Base	Acrylic Emulsion
Color	Wet: White Dry: Translucent
Consistency	Thin Syrup
Solvent	Water
Solids	58% by weight minimum
Flammability	Non-flammable in wet state
Storage	Adhesive and carpet modules must be stored between 40°F and 100°F ( 4°C and 38°C)
On Site	Carpet, adhesive and area must be conditioned to between 60°F and 90°F (15°C and 32°C) 24 hours prior to, during and after installation.
Freeze-thaw	Freeze-thaw stable for five (5) cycles at 0°F.
Shelf Life	One year stored in original container tightly sealed
Set-Up Time	Varies with humidity temperature and air velocity
Bonding Duration	Indefinite when kept clean
Clean-up	Water when still wet

**REMOVAL OF DRIED ADHESIVE FROM FLOOR SURFACE:**

1. Use a commercially available product such as "Detach" by Parabond following manufacturer's instructions carefully. This product has the advantage of leaving no residue to affect subsequent installations. Parabond can be reached at 800 763 7272
2. Apply a 1/10 solution of an ammonia based wax stripper and hot (140 degrees F) to small sections of the adhesive and allow to soak for 10 to 15 minutes. For best results wet only 100 to 200 square feet of adhesive at one time. Remove adhesive by buffing with an abrasive "Scotch Brite Brown Line" pad or similar. Squeegee or wet vacuum the floor to remove residue and neutralize with a 50/50 vinegar and water solution. Stubborn areas may require the use of a razor blade type scraper to fully remove all existing adhesive.
3. Apply one of the commonly available citrus based solvents ("Citrasolve" " OrangeSolv" DeSolvIt" or similar) and allow to sit for 10 to 15 minutes or until adhesive is very soft. Buff and clean the floor as described above to loosen and remove adhesive. Finish with a neutral detergent and clean water rinse to remove any residual solvent. Failure to remove all of these type solvents can lead to serious problems with any subsequent flooring installation.

*No guarantee or warranty, either expressed or implied, is to be inferred from the information presented in this literature.*

**Milliken Modular Carpet Adhesive-100V**

**Specification Sheet**  
**Milliken Modular Carpet Adhesive-100V**

Order as pattern #500599/757/00001

Milliken Modular Carpet Adhesive-100V is an acrylic emulsion adhesive specially formulated for use with Milliken Modular Carpets. This formulation contains no reportable solvents and meets or exceeds all CRI "Green Label" requirements (CRI registration # is PSA-456521). While providing a high degree of tack and resistance to lateral movement, it will also allow removal of the carpet squares to facilitate access to electrical lines, telephone lines, etc. as well as allowing for the replacement of worn, damaged or stained squares.

**PRODUCT DESCRIPTION**

Packaging	5 gallon pail with pour spout
Weight Per Gallon	8.5 lbs. / gallon $\pm$ 0.25 lbs.
Base	Acrylic Emulsion
Color	Wet: White Dry: Translucent
Consistency	Thin Syrup
Solvent	Water
Solids	58% by weight minimum
Flammability	Non-flammable in wet state
Storage	Adhesive and carpet modules must be stored between 40°F and 100°F ( 4°C and 38°C)
On Site	Carpet, adhesive and area must be conditioned to between 60°F and 90°F (15°C and 32°C) 24 hours prior to, during and after installation.
Freeze-thaw	Freeze-thaw stable for five (5) cycles at 0°F.
Shelf Life	One year stored in original container tightly sealed
Set-Up Time	Varies with humidity temperature and air velocity
Bonding Duration	Indefinite when kept clean
Clean-up	Water when still wet

**REMOVAL OF DRIED ADHESIVE FROM FLOOR SURFACE:**

1. Use a commercially available product such as "Detach" by Parabond following manufacturer's instructions carefully. This product has the advantage of leaving no residue to affect subsequent installations. Parabond can be reached at 800 763 7272
2. Apply a 1/10 solution of an ammonia based wax stripper and hot (140 degrees F) to small sections of the adhesive and allow to soak for 10 to 15 minutes. For best results wet only 100 to 200 square feet of adhesive at one time. Remove adhesive by buffing with an abrasive "Scotch Brite Brown Line" pad or similar. Squeegee or wet vacuum the floor to remove residue and neutralize with a 50/50 vinegar and water solution. Stubborn areas may require the use of a razor blade type scraper to fully remove all existing adhesive.
3. Apply one of the commonly available citrus based solvents ("Citrasolve" "OrangeSolv" DeSolvIt" or similar) and allow to sit for 10 to 15 minutes or until adhesive is very soft. Buff and clean the floor as described above to loosen and remove adhesive. Finish with a neutral detergent and clean water rinse to remove any residual solvent. Failure to remove all of these type solvents can lead to serious problems with any subsequent flooring installation.

*No guarantee or warranty, either expressed or implied, is to be inferred from the information presented in this literature.*

**Milliken Modular Carpet Adhesive-100V**

## FLOOR PREPARATION GUIDELINES

SEE INSTALLATION INSTRUCTIONS PROVIDED ON EACH BOX OR PALLET OF MODULAR PRODUCT BEING USED

- The sub-floor must be structurally sound, clean, dust free, smooth and level. Cracks and holes in excess of 1/8" (3.2mm) should be filled with an underlayment material such as W.W. Henry 355, Webcrete 98, Mapei "PlaniPatch", "Ardex "Featherfinish" or other Portland cement based floor. Patching/leveling compound
- Milliken Modular Carpet backings are non-reactive and contain no P.V.C. or plasticizer. This greatly simplifies the floor preparation process and eliminates the necessity of old adhesive removal.
- There is no chemical incompatibility between Milliken Modular Carpet or adhesive and any existing floor covering adhesive. This includes "cutback", asphalt emulsion, general purpose adhesive, epoxy and other commonly found flooring adhesive.
- The only requirement is to smooth the old adhesive layer until residual trowel notches are less than 1/32" (0.8mm). In most cases the removal of the existing floor covering accomplishes this with only normal sweeping, cleaning, and patching required prior to beginning installation.
- If additional smoothing is required and residual adhesive is black (cutback or emulsion) smoothing **must** be accomplished by applying a very thin layer of one of the above patching compounds.
- NEVER scrape, sand or mechanically abrade any exposed black adhesive or any existing resilient floor. These may contain asbestos.
- If residual adhesive is not black, scrape or sand until smooth.
- All protruding objects must be removed. Floor must be flat (not undulating) to within 1/4" in 12' (6.4mm across 3.66m) with no abrupt changes.
- Sealing of concrete floors is at the discretion of the floor covering contractor. In general, properly cured (90 days minimum) steel trowel finished concrete requires no additional treatment. Excessively porous or dusty concrete slabs are the only exceptions. Please call Technical Services if you have questions. KURE-N-SEAL WB from Sonneborn (800-243-6739) is a recommended product should sealing be deemed necessary, however, any non-silicone based sealer will work acceptably with non-PVC backings.
- Modules should be stored between 40°F and 100°F (4°C and 38°C) and must be conditioned to between 60°F and 90°F (15°C and 32°C) for 24 hours prior to installation.
- Floor temperature should be 60°F (15°C) minimum for proper adhesive performance.
- Floor pH should not exceed 10.0 (acid etch using a 50/50 vinegar and water or a 1/20 muriatic acid and water solution if greater than 10.0).
- Water vapor transmission should not exceed 3lbs. per 1000 square feet (1.4 Kg/93m<sup>2</sup>) per 24 hour period as determined by the #625 Calcium Chloride test available from Roofing Equipment Company, Denver, Colorado 303-371-7667. Equivalent tests are also available from various suppliers.

*NOTE: If your sub-floor has undergone asbestos abatement using a solvent based asphaltic adhesive remover, the floor must be thoroughly cleaned of any residual solvent prior to applying adhesive or Milliken modular carpet. Any residual solvent will destroy the securing power of the adhesive and in extreme cases may damage the modular carpet backing. Floors treated in this manner often have a*

## CPT 1-8 adh Milliken 100V Carpet Adhesive Specification

*citrus odor and are very greasy to the touch. If residual black adhesive has been damaged / reactivated by previous PVC backed carpet, call Technical Services for guidance.*

### **APPLICATION:**

Apply in accordance with Milliken's installation instructions printed on each box or pallet of the modular product being used.

### **COVERAGE RATES:**

See Table Below

### **MODULAR ADHESIVE SPREAD RATE TABLE**

Ç-----APPLICATION TYPE-----Ç					
PRODUCT TYPE	3 foot grid DRY	6 foot grid DRY	12 - 15 foot grid DRY	Full Spread DRY	Wet Full Spread with a 15' dry grid
18 inch Hardback	50 to 75 S.Y. / Gal.	75 - 100 S.Y. / Gal.	100 - 125 S.Y. / Gal.	40 - 50 S.Y. / Gal.	NO
18 inch Comfort Plus	NO	NO	NO	35 to 40 S.Y. / Gal.	NO
36" Comfort Plus – Commercial Markets version	50-75 S.Y. / Gal. 9" wide grid lines centered under module joint lines	NO This may change pending field study	NO	35 to 40 S.Y. / Gal.	NO
36" inch Comfort Plus "Grand Plaza" Hospitality Markets 40 oz. Cut Pile	NO	NO	NO	25 to 35 S.Y. / Gal.	<b>NO THIS METHOD IS NO LONGER ALLOWED ON ANY PRODUCT</b>
6' wide Broadloom with "Performa Tech" backing	NO	NO	NO	Do Not Exceed 25 S.Y. / Gal. Seams must be sealed with "Barrier Bond" seam sealer	NO

Effective 01/00 Note: see instructions for metric equivalents

**NOTE:**THE ONLY RECOMMENDED ADHESIVES ARE MILLIKEN MODULAR CARPET ADHESIVE 100V OR SPRAY ADHESIVE PT 35. USE OF OTHER ADHESIVES SHIFTS ALL INSTALLATION AND ADHESIVE LINKED LIABILITY TO THE ENTITY RESPONSIBLE FOR THE USE OF THE NON APPROVED PRODUCT. WARRANTIES ON CARPET ARE NOT AFFECTED BY ADHESIVE CHOICE UNLESS THE ADHESIVE CAN BE SHOWN TO HAVE CAUSED DAMAGE. ALL FAILED MODULAR ADHESIVE IS APPLIED WITH A 3/4 TO 1" NAP PAINT ROLLER OR A 1/32" x 1/32" x 1/16" NOTCHED TROWEL. SPRAY ADHESIVE COVERAGE IS 350 TO 380 SQ. YDS. PER CANISTER.

If questions remain, call Milliken Technical Services at 800.241.4826 ext. 5634. *Keep out of reach of children.*

*No guarantee or warranty, either expressed or implied, is to be inferred from the information presented in this literature.*

**Milliken Modular Carpet Adhesive-100V**